

CLAIMS

1. A protease selected from the group consisting of
 - a. a protease comprising an amino acid sequence which has at least 73% identity with the amino acid sequence shown as amino acids 1 to 226 of SEQ ID NO: 2; and
 - b. a protease which is encoded by a nucleic acid sequence which hybridises under low stringency conditions with
 - (i) a complementary strand of the nucleic acid sequence shown as nucleotides 127 to 804 of SEQ ID NO:1, or
 - (ii) a subsequence of (i) of at least 100 nucleotides; and
 - c. a protease which has 1 to 50, preferably 1 to 40, or 1 to 30, more preferably 1-20, most preferably 1-10 amino acid substitutions compared to the amino acid sequence shown as amino acids 1 to 226 of SEQ ID NO: 2.
2. A protease according to claim 1 having an amino acid sequence which has more than 75.0%, or more than 80.0%, or more than 85.0%, or more than 90.0%, or more than 92.0%, or more than 94.0%, or more than 96.0%, or more than 97.0%, or more than 98.0%, or more than 99.0% identity with the amino acid sequence shown as amino acids 1 to 226 of SEQ ID NO:2.
3. A protease according to claim 1, which comprises the amino acid sequence shown as amino acids 1 to 226 of SEQ ID NO:2.
4. A protease according to claim 1, which consists of the amino acid sequence shown as amino acids 1 to 226 of SEQ ID NO:2.
5. A protease according to any of the preceding claims, wherein the protease is a variant of a protease having the amino acid sequence shown as amino acids -25 to 226 of SEQ ID NO:2 comprising a substitution, deletion, and/or insertion of one or more amino acid residues.
6. A protease encoded by the protease encoding part of the polynucleotide cloned into a plasmid fragment present in Escherichia coli D SM 1 5940, or a variant thereof having more than 73% identity to mature part of said protease.
7. A protease according to claim 6 having more than 75.0%, or more than 80.0%, or more than 85.0%, or more than 90.0%, or more than 92.0%, or more than 94.0%, or more than 96.0%, or more than 97.0%, or more than 98.0%, or more than 99.0% identity with the mature

part of the protease encoded by the protease encoding part of the polynucleotide cloned into a plasmid fragment present in *Escherichia coli* deposited under the accession No. DSM 15940.

8. A protease according to claim 6, which comprises the protease encoded by the protease encoding part of the polynucleotide cloned into a plasmid fragment present in *Escherichia coli* DSM 15940.

9. A protease according to claim 6, which consists of the protease encoded by the protease encoding part of the polynucleotide cloned into a plasmid fragment present in *Escherichia coli* DSM 15940.

10. A protease according to claim 1, which is encoded by a nucleic acid sequence which hybridises under medium stringency conditions, preferably under high stringency conditions, with

- (i) a complementary strand of the nucleic acid sequence shown as nucleotides 127 to 804 of SEQ ID NO: 1, or
- (ii) a subsequence of (i) of at least 100 nucleotides.

11. A protease according to any of the preceding claims, where the protease is a trypsin like protease.

12. A protease according to any of the preceding claims, where the protease – when tested in “Example V Stability in detergent” - has a residual activity of at least 50% after storage at 35°C.

13. A protease according to claim 11, where the protease has a residual activity of at least 55% after storage at 35°C, such as at least 60% after storage at 35°C, more preferably at least 65% after storage at 35°C.

14. An isolated nucleic acid sequence comprising a nucleic acid sequence which encodes for the protease defined in any of the preceding claims.

15. An isolated nucleic acid sequence encoding a protease, selected from the group consisting of

- d. a nucleic acid sequence having at least 80% identity with the nucleic acid sequence shown as nucleotides 52 to 804 of SEQ ID NO: 1; and
- e. a nucleic acid sequence which hybridises under low stringency conditions with
 - (i) a complementary strand of the nucleic acid sequence shown as nucleotides 52 to 804 of SEQ ID NO: 1; or
 - (ii) a subsequence of (i) of at least 100 nucleotides.

16. A nucleic acid sequence according to claim 14, having a nucleic acid sequence which has at least 86%, such as at least 87%, e.g. at least 88%, preferably at least 89%, such as at least 90%, e.g. at least 91%, more preferably at least 92%, such as at least 93%, e.g. at least 94%, most preferably at least 95%, such as at least 96%, e.g. at least 97%, in particular at least 98%, preferably at least 99% identity with the nucleic acid sequence shown as nucleotides 52 to 804 of SEQ ID NO:1.

17. A nucleic acid construct comprising the nucleic acid sequence of any of claims 14-16 operably linked to one or more control sequences capable of directing the expression of the protease in a suitable host.

18. A recombinant expression vector comprising the nucleic acid construct of claim 17, a promoter, and transcriptional and translational stop signals.

19. A recombinant host cell comprising the nucleic acid construct of claim 17.

20. A host cell according to claim 19, which is a fungus or yeast, preferably a filamentous fungus, especially an *Aspergillus*.

21. A host cell according to claim 20 which is an *Aspergillus oryzae*.

22. A host cell according to claim 19, which is a bacterium, preferably a *Bacillus*, especially a *Bacillus lentus*.

23. A method for producing the protease according to any of claims 1-13, the method comprising:

- f. cultivating a recombinant host cell as defined in any of claims 19-22 under conditions conducive to the production of the protease; and
- g. recovering the protease.

24. A cleaning or detergent composition, preferably a laundry or dishwash composition, comprising the protease according to any of claims 1-13.

5 25. A composition according to claim 24, which additionally comprises a cellulase, lipase, cutinase, oxidoreductase, another protease, an amylase or a mixture thereof.

26. Use of a protease as defined in any of claims 1-13 in a cleaning or detergent composition.

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27. A method for cleaning or washing a hard surface or laundry, the method comprising contacting the hard surface or the laundry with the composition defined in claims 25-26.